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ABSTRACT

A Child Quality of Life Index (CQLI) should be developed in order to realize three objectives: (1) to raise the consciousness of decision makers, prospective donors, field workers, and community members concerning the needs of children; (2) to assist field workers and community members in planning specific programs to meet the priority needs of local children; and (3) to promote enhanced coordination and communication among organizations working to address the needs of children, their families, and communities. Available options for formulating a CQLI include a modified physical quality of life index, normative and non-normative micro-assessment tools, and a combination of micro and global approaches. Concerning (1) sub-scales for age groups, (2) multiple indicators in a small number of sectors, (3) selection of measures, (4) equity considerations in developing countries, (5) practicality, (6) selection of indicators most amenable to intervention strategies, (7) identification of factors exerting the greatest influence on the status of children, and (8) formulation of working hypotheses providing a conceptual framework for the CQLI, eight general principles should govern the technical construction of the CQLI. Technical development could occur in three phases: delineation, testing and validation, and application of procedures. (In conclusion, illustrations of specific dimensions and indicators that should be considered for inclusion in a CQLI are offered, and an example of how subdimensions might be weighted is provided.) (RH)

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Measuring the Child Quality of Life: Issues and Options

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May 2, 1983

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We propose the development of a child quality of life index (CQLI) that can achieve the following purposes:

- to raise the consciousness of four distinct audiences concerning the needs of children: (a) decision-makers within countries where the instrument will be applied; (b) prospective donors to organizations that work to address the needs of children; (c) field workers who, at the community level, are involved in programs that serve children; and (d) community members themselves.

- to assist field workers and community members in planning specific programs to meet the priority needs of local children.

- through cooperation in the preparation of practices and procedures related to the CQLI itself, to promote enhanced coordination and communication among organizations that work to address the needs of children, their families and communities.

Several conceptual alternatives exist with respect to the formulation of a CQLI. Among the available options that might be considered are the following:

(a) a modified physical quality of life index--Such a measure would constitute a global comparison among countries vis-a-vis the status of children and would rely on two to four simple indicators for which published data already exist (e.g. primary school

enrollment ratios, disparity between the primary school enrollment ratios of boys and girls, infant mortality rate and proportion of children in labor force). Principal advantages of such a PQLI are that it is easy and fairly inexpensive to construct and that given the relative rapidity with which such a PQLI project can be completed, it would virtually guarantee that participants could sustain their enthusiasm over its life. Several disadvantages, however, are inherent in this apporach. First, due to its global nature, it does not foster any consciousness-raising among field workers or community members and is virtually useless as a planning tool since it has no particular relevance to specific communities. Second, a global CQLI would be unsuitable for measuring small gains made over time. Finally, because of the simplicity and rapidity of the procedure associated with the development of a global CQLI, it would make little or no contribution to the promotion of enhanced communication among child-oriented organizations.

(b) a non-normative, micro-assessment tool--This option refers to the development of a set of assessment procedures that would be used by community members and field workers to establish for a specific locale children's needs with respect to such areas as health, education, recreation and vocational training. It would be non-normative in the sense that the procedures would not yield either a comparison between the community being assessed and other locales or a comparison between what

is and some pre-determined standard of what ought to be. The advantages of this option include the following: clean-cut program implications would be derived through application of the tool; consciousness-raising at the field worker and community levels would be easily facilitated; the professionalism of organizations using the tool would likely be enhanced; and the tool could be applied to a wide range of diverse program modes and settings. Among the disadvantages associated with the procedure are the high investments of time and manpower needed to develop it; the high investment in training field workers and community members to collect and analyze the local data that is essential to its use; the limited appeal it would probably have to the policy-makers and potential donors; and, because of its specificity, the difficulty in getting organizations with diverse programming modes to adopt it.

(c) a normative, micro-assessment tool--This option is similiar to the previous alternative except for one important aspect: it uses norms that allow communities to compare where they are to where they should be in much the same way that height-weight charts facilitate the recording of current status and a meaningful comparison of that status to an accepted norm. The norms could be determined for specific world regions (e.g., Asia, Africa, Mideast) or by level of national income (e.g., differing standards for high, middle, and low income countries). Another possibility would be to establish minimal standards of acceptability for international, national or local levels that reflect

consensus around goals. One type of standard might involve, to the extent possible, operationalizing the Declaration of the Rights of the Child. The advantages of this option include all those cited for the preceding alternative as well as a potential for high visibility in the international media due to the groundbreaking nature of establishing universal norms or standards for meeting children's needs. Another advantage is that these procedures, with only modest modification, could be used on both the global and community levels. The major disadvantage concerns the difficulty of obtaining agreement on the standards and corresponding indicators. Other disadvantages concern the time-consuming and costly nature of the procedure, particularly if data not currently available must be gathered in order to define basic standards.

(d) a combination of micro and global approaches--One approach worthy of discussion would be to adopt a two-tiered procedure for deriving a CQLI. On the micro level, option (b), a non-normative assessment tool, would be applied. On the global level, a normative approach would be used as described in option (c). As noted earlier in the discussion of a global measure, only two to four indicators would be used and these would be items for which published data already exist. The micro and global measures would function independently of one another. The major advantages of this approach are the combination of micro and macro perspectives on children's needs and how they are met; the relative ease of constructing the

global (macro) measure; and the high potential for consciousness-raising among diverse populations including decision-makers, prospective donors, field workers and community people. The disadvantages of deriving and applying the micro tool were identified in the discussion of option (b). In addition, it would likely prove difficult to achieve consensus on the global standards for meeting children's needs.

Regardless of the option selected, we believe that the following general principals ought to govern the technical construction of the CQLI.

1. The instrument or procedure should facilitate the identification of children's needs by age groups through the use of sub-scales.

2. For the most meaningful results, only a relatively small number of sectors should be analyzed as part of the CQLI. For each sector selected, however, multiple measures (e.g. indicators) should be used.

3. The selection of measures, in part, should be predicated on the ease with which the correspondong data can be obtained. On the macro level, the selection of indicators should be limited to information that is already published.

4. Equity considerations should be factored into some or all of the measures selected for inclusion in the CQLI. In developing countries, the two most prevalent sources of inequity are

rural-urban differences in availability and coverage of services and male-female disparities in service utilization.

5. At all levels of CQLI development and use, procedures should be as practical as possible.

6. Insofar as possible, restrict the selection of indicators used in the CQLI to those variables that are most amenable to intervention strategies. Land tenure patterns, for example, may exert an important influence on child well-being. They are not, however, easily changed through community-based projects that rely primarily on local resources.

7. For each sector, identify the factors that exert the greatest influence on the status of children and obtain measures related to these factors. For example, within the health sector a high proportion of the variance in infant mortality rates can be explained by access to potable water and vaccination programs. Therefore, at the micro level, collect data on access to a safe water supply and vaccinations. This will enable users to derive the program implications of the CQLI with relative ease.

8. Formulate a series of working hypotheses that provide a conceptual framework for the CQLI. An example of such hypotheses include the following:

H_1: level of child health (H) + level of child education (E) + exposure of child to risk factors (EX) → level of child well-being (W)

H_2: $E + EX \rightarrow H$

H_3: $H + EX \rightarrow E$

In this framework, H_1 is the basic working hypothesis while H_2 and H_3 are experimental in nature. The set, as a whole, shows the integrated and highly interdependent nature of the factors deemed essential to the level of child well-being.

We envision that the technical development of a CQLI would occur in three phases. During Phase One, the delineation of a set of procedures for measuring the child quality of life at the micro and/or macro levels (depending on the option selected) would be completed; decisions would be made on what data to collect and how to collect it. This, of course, presupposes acceptance of a basic model of interrelationships among those variables that influence child well-being. During Phase Two, those procedures would be tested and validated or modified as necessary through small-scale piloting activities. Application of the procedures on a large scale would occur in Phase Three.

In conclusion, we wish to suggest, by means of the table that follows, illustrations of specific dimensions and indicators that should be considered for inclusion in a CQLI. In the column on the left, "dimension," a broad category of variables is listed. In the column on the

right, "sub-dimensions," variables or indicators are listed that exert a high degree of influence on the corresponding dimension. In other words, the indicators on the right are believed to have a high degree of predictive validity with respect to the key outcome variable, level of child well-being. Items that are underlined can be used for both a global and micro CQLI. Items that are not underlined are recommended only for consideration as part of a micro version of a CQLI. Please note that it would be impractical to include all of the items listed as sub-dimensions in a CQLI. Instead, this table is useful insofar as it presents options with respect to the selection of indicators.

Dimension	Sub-Dimensions
Health	access to primary health care; prevalence of breastfeeding; proportion of population with access to potable water source; nutritional status; immunization rates for key illnesses; infant mortality rate; morbidity rates.
Human Resource Development (promotion of skills and knowledge needed to become a self-reliant adult)	primary school enrollment ratios; secondary school enrollment ratios; prevalence of early childhood stimulation; participation rates for youth 11-16 in nonformal education programs; degree to which social support structures have been developed within a community.
Exposure to risk factors	prevalence of war and civil violence; environmental safety; family income; family size; unemployment rate for out-of-school youth; social inequity (defined as the differences between male-female and urban-rural primary school enrollment ratios).

If a normative approach is taken in developing the CQLI, it would be necessary to assign a maximum weight for each sub-dimension selected for inclusion and then to derive standards for scoring. Optimally, the weighting system would mirror the relative influence exerted by the factor on a child's well-being. An example, for illustrative purposes only, of how this might

be accomplished for a global CQLI is presented below. It is assumed that the maximum point value of all indicators would total 100. The same basic procedure could be used for a normative micro tool although the selection of indicators would change.

Dimension	Indicator	Weighting	Scoring Criteria
Health (45)	access to potable water	25	25=all have access 20=75-99% with access 15=65-74% with access 10=50-64% with access 5=35-49% with access 0=<35% with access
	immunization rate	20	20=100% immunization 15=75-99% immunization 10=65-74% immunization 5=50-64% immunization 0=<50% immunization
Human Resource Development (30)	primary school enrollment ratio	20	20=100% enrollment 15=75-99% enrollment 10=65-74% enrollment 5=50-64% enrollment 0= 50% enrollment
	secondary school	10	10=>80% enrollment 7=60-79% enrollment 5=45-59% enrollment 3=3044% enrollment 0=<30% enrollment
Exposure to risk factors (25)	war or civil violence	10	10=absence of war or extensive civil disturbance 0=presence of war or extensive civil disturbance
	family size	5	5=average number of children in family, 3 or fewer 3=average number of children in family, 4-5 0=average number of children in family, greater than 5

Dimension	Indicator	Weighting	Scoring Criteria
	social equity	10	10=no disparity in combined ratios for male-female and rural-urban primary school enrollment 7=disparity does not exceed 10 percentage points 5=disparity between 11 and 15 percentage points 3=disparity between 16 and 20 percentage points 0=disparity exceeds 20 percentage points

As with a height-weight chart, each country's CQLI profile could be plotted on a color-coded table. Danger areas could be shown through the use of red bands, while relatively mild problems might be depicted through pink ones. Areas where the highest standard has been achieved could appear in black, and gray might signify a status close to the optimum standard. Such a chart would make it relatively easy for country planners to formulate intermediate goals and show change.

In summary, a wide range of decisions confronts those who wish to develop a CQLI. Each possible option has both advantages and disadvantages. The final selection of a CQLI procedure must depend on a careful analysis of what it is intended to accomplish and whom it is intended to reach.